
Appendix E. Figure Descriptions

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Figure Descriptions

Table E-1 lists the figure descriptions for all figures included in this Supplemental EA.

Table E-1. Figure Descriptions

Figure Number	Figure Name	Description
Figure 1-1	Previous and Current Project Area	<p>Figure 1-1 compares the Project Area evaluated for the 2019 Environmental Assessment and the project area evaluated for the Revised Environmental Assessment. It shows the original study area and calls out an existing parking lot south of North Interstate Avenue and the Broadway Bridge that may be used for contractor staging during construction. The southern end of the Project Area is expanded to include the portion of I-5 south of the Burnside Bridge proposed for a retrofit of the existing bridge rail, restriping the existing highway, and installation of new guide signs. At the northernmost end of the Project Area, a small area is added along the I-5 shoulders for fiber optic conduit.</p> <p>The Project Area was reduced west of the intersection of Northeast Clackamas Street and Northeast 2nd Avenue to remove a parking lot (planned for acquisition under the 2019 Environmental Assessment) that is no longer needed due to the removal of the Clackamas Bicycle and Pedestrian Crossing.</p>
Figure 1-2	Project Goals	<p>Figure 1-2 provides the approximate locations of some of the project goals. Note: The project drawing is conceptual.</p> <p>North Flint Avenue is labeled "Restores the local street grid."</p> <p>Northeast Hancock Street is labeled "Maximizes developable land on and off cover."</p> <p>North Vancouver Avenue is labeled "Creates walkable bikeable vibrant community connections."</p> <p>I-5 shoulders are labeled "Improves traffic flow and safety."</p> <p>I-5 is labeled "I-5 between I-405 and I-84 has highest crash rate on urban interstates in the State of Oregon."</p> <p>I-5 is labeled "I-5 in the vicinity of the Broadway/Weidler interchange experiences some of the highest traffic volumes in the State of Oregon, carrying approximately 121,400 vehicles each day, and experiences 12 hours of congestion each day."</p> <p>Broadway/Weidler Interchange is labeled "The complexity and congestion at the I-5 Broadway/Weidler interchange configuration is difficult to navigate for vehicles (including transit vehicles) and people who walk, bike, and roll which impacts access to and from I-5 as well as to and from local streets."</p>
Figure 2-1	Hybrid 3 Highway Cover Design Concept	<p>Figure 2-1 shows an illustration of the Hybrid 3 Highway Cover Design Concept (called Revised Build Alternative).</p> <p>Callout box pointing to the highway cover is labeled "Maximizes developable land." Callout box pointing to Northeast Hancock Street (a new street crossing) and North Flint Avenue (a reconnected street) is labeled "Restores the local street grid." Callout box for Green Loop along North Broadway and North Weidler Street is labeled "Creates walkable and bikeable community connection." Arrows are also illustrating the new patterns of traffic using highway ramps from I-5.</p>

Figure Number	Figure Name	Description
Figure 2-2	Cross-Section of I-5 under the No-Build Alternative	Figure 2-2 shows a cross section of I-5 under existing conditions. Existing conditions are the same for northbound and southbound traffic and include an inside and outside shoulder of varying width and two 12-foot-wide lanes.
Figure 2-3	Overview of the Revised Build Alternative	Figure 2-3 shows an illustration drawn on an aerial image. At the top of the figure the highway cover is shown spanning I-5 north of North Flint Avenue to just north of Northeast Victoria Avenue. Northeast Hancock Street is labeled showing a new east-west crossing under the highway cover. Both Northeast Broadway Street and Northeast Weidler Street are called out as "The Green Loop Connection" showing a new east-west connection under the highway cover. The I-5 southbound off-ramp relocation is shown exiting the highway and connecting to North Wheeler Avenue. The I-5 ramp to ramp auxiliary lanes and shoulder are shown extending the existing auxiliary lane on I-5 southbound and adding a new auxiliary lane on I-5 northbound.
Figure 2-4	Auxiliary Lane/Shoulder Improvements	Figure 2-4 shows the auxiliary lanes proposed under the Revised Build Alternative. Existing auxiliary lanes would remain, and a new northbound auxiliary lane would be added to connect the I-84 westbound on-ramp to the North Greeley Avenue off-ramp. The existing southbound auxiliary lane currently ends just south of the North Broadway off-ramp (in the vicinity of the Broadway overcrossing structure) and would extend to the Morrison Bridge/Oregon Museum of Science and Industry off-ramp.
Figure 2-5	I-5 Auxiliary (Ramp-to-Ramp) Lanes – Existing Conditions and Proposed Improvements	Figure 2-5 shows the existing and proposed auxiliary lane configurations. Southbound auxiliary lane would be extended as a continuous auxiliary lane from the North Greeley on-ramp to the Morrison Bridge/Oregon Museum of Science and Industry off-ramp. A new northbound auxiliary lane would be added to connect the I-84 westbound on-ramp to the North Greeley Avenue off-ramp.
Figure 2-6	I-5 Cross Section (North/Northeast Weidler Overcrossing) – Proposed Improvements	Figure 2-6 shows a cross section of I-5 south of the Broadway/Weidler interchange area with the proposed auxiliary lanes and shoulder. South of the I-84 off-ramp, the I-5 southbound auxiliary lanes would be added by re-striping the I-5 mainline in both the northbound and southbound directions. Through re-striping, the I-5 center median would be shifted to the east, and the existing shoulders on I-5 in the approximately 1,200-foot segment between the I-84 off-ramp and the Morrison Bridge/Oregon Museum of Science and Industry off-ramp would be narrowed to approximately 3 to 9 feet in both the northbound and southbound directions.
Figure 2-7	Building Parameters on the Cover	Figure 2-7 shows building parameters for the highway cover as follows: The northern portion of the highway cover (between North Tillamook Street to North Hancock Street) is described as "Spans over 80 feet with lightweight buildings up to 3-stories with reasonable constraints." The southern portion of the highway cover (between North Hancock Street to just south of Northeast Weidler Street) is described as "Spans under 80 feet with buildings up to 3-stories with limited constraints. Up to 6-story lightweight buildings could be possible with strict constraints through design modifications to bridge type and roadway profiles."

Figure Number	Figure Name	Description
Figure 2-8	Potential Highway Cover Uses	Figure 2-8 shows a rendering of potential immediate use of the highway cover. Features include added surface space for new local roadways and modern bicycle facilities that make the area more connected, walkable, and bike friendly.
Figure 2-9	Broadway/Weidler Interchange Area Improvements	Figure 2-9 shows the improvements at Broadway/Weidler Interchange including: Addition of I-5 ramp to ramp (auxiliary) lanes and shoulders Addition of highway cover Relocation of I-5 southbound off-ramp Local street modifications including modification of North Williams (between North Ramsay and Weidler) Addition of protected bike lanes on North Williams Closure of crosswalks at Northeast Williams Avenue/Northeast Broadway and North Williams/Northeast Weidler Street Addition of local bicycle and pedestrian facilities to streets on highway cover Addition of new Hancock crossing Addition of traffic calming at Northeast Hancock/North Williams
Figure 2-10	I-5 Ramp Relocation	Figure 2-10 shows the relocation of the I-5 southbound off-ramp. The figure shows the removal of the existing off-ramp and relocates it south of Northeast Weidler, where North Williams, North Ramsay, Northeast Wheeler, and the I-5 southbound on-ramp currently come together. The relocated ramp begins on the north side of the proposed highway cover and extends south under the highway cover. The relocated ramp ends once it comes out from under the highway cover on the south side of Northeast Weidler. The ramp curves to the west to connect with the local street network at the intersection of North Wheeler, North Williams, and North Ramsay.
Figure 2-11	Proposed Modifications to North Williams between Broadway and Weidler	Figure 2-11 shows the North Williams bike facility/path and revised traffic flow as follows: Modify to one through lane and two right-turn lanes onto Northeast Weidler. Remove existing angled parking on the east side of roadway. Add a raised and protected bike facility and sidewalk. Modify to one left turn lane to Broadway, a combined left turn/through lane, and a through lane between North Weidler and North Broadway. Provide access to the I-5 northbound on-ramp and through movements on North Williams from two northbound travel lanes along the west side of North Williams. Add a raised and protected bike facility on the east side of North Williams (from North Weidler to intersection of North Williams/North/Northeast Broadway just north of the I-5 northbound on-ramp). Add buffered bike lane just north of the I-5 ramp entrance. The buffered bike lane crosses diagonally from the east to the existing buffered bike lane on the west through a new signal at Northeast Hancock.

Figure Number	Figure Name	Description
Figure 3-1	Existing Land Use	<p>Figure 3-1 shows the existing land use near I-5. The land bounded by the northern API extent and I-405 is primarily industrial with a few blocks of commercial land use located just north of I-405.</p> <p>Land south of I-405 between the Willamette River and North Williams Avenue is dominated by commercial use.</p> <p>Land east of North Williams Avenue and north of Northeast Schuyler Street is dominated by single-family residential use with some multi-family residential mixed in.</p> <p>Land south of Northeast Broadway to the southern API extent is also dominated by commercial land use with small amounts of multi-family residential use and two parks.</p> <p>On the west side of the Willamette River, land uses are primarily commercial with some multi-family and park uses.</p>
Figure 3-2	Comprehensive Plan Designations	<p>Figure 3-2 shows City of Portland Comprehensive Plan designations. This figure identifies the Central City 2035 Plan Area, and City of Portland Transportation System Street Plan Classifications near I-5, bounded by I-405 to the north and I-84 to the south.</p> <p>The figure extent includes area south of North/Northeast Morris to the Burnside Bridge and the eastern bank of the Willamette River extending east to Northeast 9th Avenue.</p> <p>The Central City 2035 Plan Area includes area east of I-5 between I-405 and North/Northeast Schuyler Street and all areas within the figure extent that are south of North/Northeast Schuyler.</p> <p>The following City of Portland Transportation System Plan Street Classifications are shown I-5, I-405, and I-84 are shown as "Urban Throughway"; North/Northeast Broadway, Northeast Martin Luther King Jr. Boulevard, and NE Grand Avenue are shown as "Main Civic"; North Interstate Avenue, North Thunderbird Way, and North Weidler on the east side of the Willamette and Northwest Naito Parkway on the west side of the Willamette are shown as "Corridors – Civic"; North/Northeast Holladay Street, Northeast Lloyd Boulevard, and Northeast 9th on the east side of the Willamette River and Northwest Everett Street on the west side of the Willamette River are shown as "Corridors – District/Neighborhood"; North Russell, North Williams (north of NE Russell), Northeast Multnomah, Northeast 7th Avenue, and Northeast Couch Street (west of NE 6th Avenue) are shown as "Main – District/Neighborhood"; and North Vancouver (north of North Broadway) and North Williams (north of North Russell) are shown as "Corridors – Community."</p> <p>The following City of Portland Comprehensive Plan designations are shown: West of I-5, from the northern extent of the figure south to approximately North Broadway, is primarily "Industrial Sanctuary" with some areas of "Central Employment" and "Central Commercial"; east of I-5 south of North Broadway is primarily "Central Commercial" with some areas of "Open Space" and "Industrial Sanctuary." East of I-5 from the northern figure extent south to Northeast Schuyler is variable with designations including "Industrial Campus"; "Open Space"; "Urban Commercial"; "Mixed Use – Urban Center"; "Multi-Dwelling 1,000, 2,000, and 5,000"; "High Density Residential"; "Central Residential"; and "Mixed Use Dispersed." South of Northeast Schuyler to I-84 is almost entirely "Central Commercial," and south of I-84 is "Industrial Sanctuary" and "Mixed Use – Urban Center."</p>

Figure Number	Figure Name	Description
Figure 3-3	Land Converted to Transportation Use	<p>Figure 3-3 shows the land that would be converted to transportation under the Revised Build Alternative.</p> <p>Temporary construction easement for construction staging (not permanently converted to transportation use) for a 3.7-acre paved parking lot located at 1225 North Thunderbird Way.</p> <p>Permanent easement for approximately 0.7 acres of surface and/or subsurface</p> <p>Temporary construction easement for 7.3 acres needed to accommodate supporting structures for the highway improvements, staging/work area, and for retaining walls adjacent to Harriet Tubman Middle School.</p>
Figure 3-4	City of Portland Zoning on Highway Cover	<p>Figure 3-4 illustrates the potential future zoning for land use on the highway cover.</p> <p>Land use in the northeast portion of the highway cover (north of Northeast Schuyler Street) consists of "General Employment 1" use surrounding by "Commercial Mixed Use 3."</p> <p>Land along the eastern portion of the highway cover (north of Northeast Schuyler Street) consists of "Central Employment" zoning.</p> <p>All land south of Northeast Schuyler Street consists of "Central Commercial" zoning.</p>
Figure 3-5	Estimated ROW Impacts	<p>Figure 3-5 shows the potential right of way impacts under the Revised Build Alternative. Impacts include:</p> <p>1.8 acres in fee simple (permanent acquisition) located near Northeast Victoria Avenue and Northeast Broadway and a small parcel west of I-5 along Northeast Broadway.</p> <p>0.57 acre of permanent easement for surface and/or subsurface uses (primarily related to retaining walls and maintenance access) located west of I-5 along North Vancouver Avenue and south of the I-5 and I-84 interchange.</p> <p>Approximately 6.87 acres of temporary easement for construction work areas, driveway reconnections, and staging dispersed throughout the API with one larger parcel west of Interstate Avenue along the Willamette River.</p>
Figure 3-6	Public Service in the API and Surrounding Community	<p>Figure 3-6 shows the location of various public services within and around the API.</p> <p>There are 23 public service providers in and around the API. Only two public services are located inside the API. These include Grandma's Place – Rose Quarter and the Hooper Detoxification Stabilization Center.</p>
Figure 3-7	Subdistricts in the API	<p>Figure 3-7 illustrates the boundary of the three subdistricts that encompass the API. These include Lower Albina (northern extent of API to Broadway Bridge), Lloyd (Broadway Bridge to I-84), and Central Eastside (from I-84 to southern API extent).</p>
Figure 3-8	Subsidized Housing in the API and Surrounding Community	<p>Figure 3-8 shows the location of subsidized housing located within and around the API. Seven housing units are identified; only Madrona Studies is located inside the API boundary. The remaining housing units are located west of the API.</p>

Figure Number	Figure Name	Description
Figure 3-9	Bicycle Crossings with Exclusive Turning Lanes	<p>Figure 3-9 illustrates the location of bicycle crossings that include exclusive turning lanes, with intersections labeled with circles numbered 1 through 5 and directional arrows. Bicycle crossings with exclusive turn lanes would be added eastbound at North Weidler Street and North Vancouver Avenue (labeled as 2 on the figure) and northbound at Northeast Weidler Street (labeled as 4 on the figure).</p> <p>Bicycle crossings with exclusive turning lanes would be maintained westbound at Northeast Broadway and North Williams Avenue (labeled as 3 on the figure).</p> <p>Bicycle crossings with exclusive turn lanes would be added eastbound/westbound at Northeast Broadway and North Larrabee Avenue under both the No-Build Alternative and the Revised Build Alternative (labeled as 1 on the figure).</p> <p>An additional signal would be added at the intersection of Northeast Weidler Street and North Vancouver Avenue (eastbound) (labeled as 2 on the figure), Northeast Weidler Street and North Williams Avenue (northbound) (labeled as 4 on the figure), and North Williams Avenue and Northeast Hancock Street (northbound) (labeled as 5 on the figure).</p>